

WHAT IS CLAIMED IS:

- 8-25-71
1. A liquid crystal display device comprising:
a switching element formed on a substrate;
a pixel electrode formed of a transparent conductive film,
said electrode being connected to said switching element; and
a reflection layer formed of a dielectric multilayer film,
which is arranged in contact with said pixel electrode.
2. A device according to claim 1, wherein a liquid crystal is sealed
between a pair of substrates, said liquid crystal display device
comprising said pixel electrode arranged in a matrix manner on one
substrate, a thin film transistor connected to said pixel electrode,
and a reflection layer.
3. A liquid crystal display device comprising a switching element
formed on a substrate, a pixel electrode connected to said switching
element, and a reflection layer,
wherein said pixel electrode is formed of a transparent
conductive film, and
wherein said reflection layer formed of a dielectric
multilayer film is provided under said pixel electrode.
4. A device according to claim 3, wherein a liquid crystal is sealed
between a pair of substrates, said liquid crystal display device
comprising said pixel electrode arranged in a matrix manner on one
substrate, a thin film transistor connected to said pixel electrode,
and a reflection layer.
5. A liquid crystal display device comprising a switching element
formed on a substrate, a pixel electrode connected to said switching
element, and a reflection layer,

wherein said switching element is connected to a capacitance,

the capacitance comprising a common electrode formed of a transparent conductive film, a dielectric film formed on said common electrode, and said pixel electrode formed of a transparent conductive film formed on said dielectric film, and

wherein said reflection layer formed of a dielectric multilayer film is provided below said common electrode.

6. A device according to claim 5,

wherein said dielectric film is made of a dielectric material having a low refractive index, and

wherein said common electrode and said pixel electrode are both made of a conductive material having a high refractive index.

7. A device according to claim 5, wherein a liquid crystal is sealed between a pair of substrates, said liquid crystal display device comprising said pixel electrode arranged in a matrix manner on one substrate, a thin film transistor connected to said pixel electrode, and a reflection layer.

8. A method of manufacturing a liquid crystal display device, comprising the steps of:

forming a switching element on a substrate;

forming a reflection layer formed of a dielectric multilayer film above said switching element; and

forming a pixel electrode formed of a transparent conductive film on said reflection layer.

9. A method according to claim 8, wherein said step of forming said dielectric multilayer film is performed by sputtering method or

vacuum deposit method.

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10. A method of manufacturing a liquid crystal display device, comprising the steps of:

- forming a switching element on a substrate;
- forming an interlayer insulating film over said switching element;
- forming a common electrode formed of a transparent conductive film on said interlayer insulating film; -
- forming a reflection layer formed of a dielectric multilayer film on said common electrode; and -
- forming a pixel electrode formed of a transparent conductive film on said reflection layer to form an auxiliary capacitance comprised of said pixel electrode, said dielectric multilayer film, and said common electrode.

11. A method according to claim 10, wherein said step of forming said dielectric multilayer film is performed by sputtering method or vacuum deposit method.

12. A liquid crystal display device, wherein a liquid crystal is sealed between a pair of substrates, said liquid crystal display device comprising:

- a first transparent electrode formed on one substrate;
 - a second transparent electrode formed on another substrate;
- and
- a reflection layer formed of a dielectric multilayer film.

13. A device according to claim 12, comprising said first and second transparent electrode being arranged in a stripe manner, and said reflection layer formed of said dielectric multilayer film below

said second transparent electrode,

wherein said liquid crystal display device has a simple matrix type driving system.

14. A liquid crystal display device, comprising:

a switching element formed on a substrate;

a pixel electrode formed of a transparent conductive film, said electrode being connected to said switching element;

a dielectric film below said pixel electrode; and

a reflection layer made of a metal material below said dielectric film.

15. A device according to claim 14,

wherein said pixel electrode is made of a conductive material having a high refractive index, and

wherein said dielectric film is made of a dielectric material having a low refractive index.

16. A device according to claim 14, wherein said pixel electrode, said dielectric film, and said reflection layer constitute a capacitance.

17. A liquid crystal display device, comprising:

a switching element formed on a substrate;

a pixel electrode formed of a transparent conductive film, said electrode being connected to said switching element;

a dielectric multilayer film below said pixel electrode; and

a reflection layer made of a metal material below said dielectric multilayer film.

18. A device according to claim 17, wherein said pixel electrode,

said dielectric multilayer film, and said reflection layer constitute a capacitance.

19. A device according to claim 17, wherein a potential of said reflection layer is a common potential.

20. A device according to claim 17, wherein a reflection area of said reflection layer is greater than an electrode area of said pixel electrode.

21. A device according to claim 17, wherein a liquid crystal is sealed between a pair of substrates, said liquid crystal display device comprising said pixel electrode arranged in a matrix on one substrate, a thin film transistor connected to said pixel electrode, and a reflection layer.

22. A method of manufacturing a liquid crystal display device, comprising the steps of:

forming a switching element on a substrate;

forming a reflection layer formed of a metal material above said switching element;

forming a dielectric film on said reflection layer; and

forming a pixel electrode formed of a transparent conductive film on said dielectric film.

23. A method of manufacturing a liquid crystal display device, comprising the steps of:

forming a switching element on a substrate;

forming a reflection layer formed of a metal material above said switching element;

forming a dielectric multilayer film on said reflection

layer; and

forming a pixel electrode formed of a transparent conductive film on said dielectric multilayer film.

24. A method of manufacturing a liquid crystal display device, comprising the steps of:

forming a switching element on a substrate;

forming an interlayer insulating film over said switching element;

forming a reflection layer made of a metal material on said interlayer insulating film;

forming a dielectric film on said reflection layer; and

forming a pixel electrode formed of a transparent conductive film on said dielectric film to form an auxiliary capacitance comprised of said pixel electrode, said dielectric film, and said reflection layer.

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